

| **Branch/Semester** | BSc. IT (Cloud & Application Development) / II |
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| **Subject Name:** | Advance of Application Programming |
| **Subject Code:** | 05CA0203 |
| **Assignment:** | Assignment No. 2 (Operator Overloading & Constructor) |
| **Date:** | 20th January 2025 |
| **Faculty Name:** | Prof. Abhishek Chauhan |

| **1.** | Create a class for handling fractions where you overload operators like +, -, \*, and / to perform arithmetic operations on fractions. |
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| **2.** | Build a program for a Book class. Use a copy constructor to create new book objects, define specialized constructors for different types of books, and use constant members for unchangeable attributes like the book's ISBN. Utilize static members for common properties like the total number of books available in the library. |
| **3.** | Create a class representing a simple calculator. Overload the + operator to add two numbers and the \* operator to multiply them. Understand initialization by using constructors to set initial values and assignment by overloading the = operator to assign values. |
| **4.** | Create a class for handling shopping items where you overload the + operator to add item quantities. |
| **5.** | Make a program for managing employee records where you use a copy constructor to duplicate employee information, implement specialized constructors for different employee types (like full-time or part-time), and use constant members for unchangeable data (such as employee IDs) and static members for shared data (like total employees in the company). |